

Key Result Area 4: Institutional Coordination and Cooperation

"There would be obvious advantages to bringing a unified political control over the management of a single ecosystem [or bioregion]..."

In the latter part of the twentieth century it appears more feasible to seek close cooperation among the agencies involved in management of a bioregion than to attempt the redrawing of political maps."

—R. F. Dasmann, 1995: *Bioregion, In Conservation and Environmentalism: An Encyclopedia*



Desired Result

Strong, institutionalized partnerships for the management of water resources among all levels of government, the private sector, non-governmental organizations, and individuals that have an interest in sustainable water resources management.

What Does Institutional Coordination and Cooperation Mean?

Integrated management requires that all the related aspects of the water resource be considered in decision-making at many levels and within many jurisdictions. Successful implementation of this Plan will require a high degree of coordination and cooperation, including horizontal integration, vertical integration and partnerships institutionalizing these relationships.

What is the Importance of Institutional Coordination and Cooperation?

Historically, water resources management has been fragmented, with different agencies and multiple players working on their own programs and agendas — often redundantly, sometimes at cross-purposes, and usually on single issues. We now understand the need for integrated management, coordination, and collaboration. This Basin Plan is itself the product of a collaborative planning effort among a wide range of Basin stakeholders. While it is clear that an integrated approach to managing our water resources is important, achieving and sustaining the necessary level of coordination and cooperation among the Basin's many decision-makers and other stakeholders requires that relationships among partners be reflected institutionally — in the way we make decisions and “do business” on a daily basis.

Horizontal integration means coordinating actions and programs among actors operating within a level of jurisdiction.

- External: Where two or more agencies at the same jurisdictional level have responsibility for an aspect of water resources, there is a need for consistency in the application of policy. For example, the agencies responsible for floodplain and stormwater management need to work together to achieve a uniform policy message and outcome.
- Internal: Departments within agencies must establish consistency among programs. For example, offices responsible for wastewater management plan approval, water allocations and facility permitting need to coordinate plan and permit review requirements. This will result in more comprehensive oversight of water resource use and can lead to streamlined review processes and greater efficiency overall.

Vertical integration involves the alignment of efforts at various decision-making levels to achieve consistent outcomes. For example, when the Federal government sets minimum standards pursuant to the Safe Drinking Water Act, the states must adhere

ASPECTS OF WATER RESOURCES

Supply and
demand

Quality and
quantity

Surface and
ground water
systems

Potable supply
and wastewater
infrastructure
management

The dynamic
relationship of
water and land
resources at the
water's edge
and throughout
a watershed
system

to these federal standards (unless they adopt more stringent ones), and regional and local jurisdictions must apply these standards when exercising their permitting or management authority.

Stormwater and flood management represent another far more complex example. Stormwater involves issues of quality, quantity and timing for which policies, plans, regulations and permits must be developed and approved. Flood management shares a concern with timing and quantity, but involves event forecasting and response activities, mitigation planning, and inspection activities to minimize loss of life and property. The variety of concerns associated with stormwater and flood management is mirrored in our institutionalized approaches. In many cases, there is little coordination among flood management and stormwater management programs. The table below illustrates the distribution of authority for stormwater and flood management.

TABLE 2: FLOOD AND STORMWATER MANAGEMENT RESPONSIBILITIES

AGENCY			RESPONSIBILITY							
			POLICY	PLANNING	REGULATION	ENFORCEMENT	PROJECTS	DATA	INSPECTIONS	FORECASTING & RESPONSE
DRBC COORDINATION	FEDERAL	Army Corps		FLOOD			FLOOD		FLOOD	FLOOD
		EPA	STORM		STORM					
		FEMA	FLOOD	FLOOD	FLOOD	FLOOD	FLOOD	FLOOD		FLOOD
		NRCS		FLOOD			FLOOD			
		NWS						FLOOD		F & S
		USGS						FLOOD		
	STATE	EMAs	FLOOD	FLOOD	FLOOD	FLOOD				FLOOD
		State EPAs	STORM	F & S	F & S	F & S			F & S	
	LOCAL	SCDs				STORM				
		Counties	F & S	STORM			FLOOD		FLOOD	FLOOD
		Municipalities		F & S	STORM	STORM	FLOOD		F & S	FLOOD

KEY:

F & S = Flood and Stormwater

FEMA = Federal Emergency Management Agency

EMA = Emergency Management Agency

EPA = Environmental Protection Agency

NRCS = National Resources Conservation Service (Federal)

NWS = National Weather Service

SCD = Soil Conservation Districts

USGS = US Geological Survey

The Value of Partnerships

Partnerships play a critical role in fostering integration management efforts. Partnerships offer:

- A common focus—attention on a common concern or a common landscape draws various interests together

Institutional Coordination and Cooperation

- A level playing field: In a partnership all participants—regardless of their authority, financial or political interests—have an equal role in decision-making
- Improved communication — sectors that are often isolated from decision-making can have a voice in the decision process
- Information exchange—partnerships provide a forum for instantaneous information exchange and increase understanding of the environmental, economic and political consequences associated with the issue

Coordination and Cooperation are needed to:

- Ensure consistency among state laws and state and local regulations, ordinances and plans
- Support the integrated management of land and water resources
- Enable multi-municipal approaches to address growth management and water resource issues in a watershed context
- Support and implement watershed-based trading
- Coordinate flood hazard mitigation planning and implementation
- Coordinate recreational planning and facility development
- Coordinate restoration activities
- Control the spread of invasive species
- Design and implement non-point source runoff controls
- Support effective habitat conservation and protection projects
- Support coordinated research, studies, and monitoring of streams to further our understanding of ecological processes
- Develop and adopt integrated resource management plans
- Accommodate both the rights of New York City under the 1954 Supreme Court's decree and the increased water flows necessary to sustain growth in the down-Basin states and to protect fisheries and ecosystems

Goals for Institutional Coordination and Cooperation

- 4.1 Improve coordination and cooperation in the management of water resources in the Basin.
- 4.2 Increase sharing of data, information, and ideas among Basin stakeholders and reduce duplication of effort.
- 4.3 Secure adequate resources for programs and projects that encourage cooperative water resources planning and management.
- 4.4 Ensure that water resource partners support and execute water resources management in accordance with the Guiding Principles, Goals and Objectives of this Basin Plan.
- 4.5 Utilize the planning and regulatory powers of a regional governmental authority, the Delaware River Basin Commission, to facilitate coordination and cooperation.

GOAL 4.1: Improve coordination and cooperation in the management of water resources in the Basin.

This Goal cuts across all of the Key Result Areas encompassed by this Plan. There is no single “cookie-cutter” approach to improving coordination and cooperation among the many agencies, businesses, elected officials, not-for-profit organizations and individuals who play a part in managing the Basin's water resources. For each area of research, planning, policy, management or decision-making that this Plan addresses, several steps must be taken to improve coordination and cooperation. The details of

Water Resource Management Highlights

May 25, 1931 US Supreme Court grants New York City the right to withdraw 400 million gallons a day (mgd) from two reservoirs to be built on headwater tributaries feeding the Delaware main stem.

1936 Three Basin states, New Jersey, New York, and Pennsylvania, create the Interstate Commission on the Delaware River Basin (INCodel), an advisory body which establishes water quality standards and begins taking measures to meet them. The State of Delaware joins in 1938.

June 7, 1954 An amended Supreme Court decree permits New York City to increase its withdrawal rate to 800 mgd, contingent on the city's construction of a third in-basin water supply reservoir, and on the city's consent to release from its three upper-basin reservoirs sufficient water to assure adequate stream flows down River. The decree also permits an out-of-basin diversion to central and northeastern New Jersey through the Delaware and Raritan Canal.

July 1955 to December 1960 The Basin state Governors look at ways to put regulatory muscle behind INCodel, creating a regional body with the force of law to oversee development and control of the river system. The worst flood in the Basin's recorded history — a flood that takes 99 lives — leads Congress to direct the US Army Corps of Engineers to develop a comprehensive physical plan for the Basin. The Corps' December 1960 report calls for 58 water control projects to be built over a 50-year period. The largest dam in the plan is for the main stem of the River at Tocks Island.

September 1961 President Kennedy signs the Delaware River Basin Compact, creating the Delaware River Basin Commission (DRBC), and marking the first time in the nation's history that the federal government and a group of states had joined together as equal operating partners in a river basin planning, development, and regulatory agency.

1969 to 1974 National support for environmental protection leads to legislation requiring environmental impact statements, the establishment of the USEPA, and federal programs for expanded water quality protection. The Basin states establish departments of environmental protection and conservation.

1978 to 1983 A record drought during the 1960s, followed by opposition to plans to dam the Delaware at Tocks Island, lead the DRBC to examine alternative ways to provide adequate water supply during droughts. Five years of deliberations among the 1954 Supreme Court decree parties result in a "Good Faith Agreement" which includes 14 recommendations focusing on drought management. The foundation for the Agreement, the Level B Study released in 1981, identified a preferred plan of action for water resources management through 2000.

1986 to 1992 Water conservation program established by DRBC for Pennsylvania's portion of the Basin.

June 1989 Dedication of Merrill Creek reservoir which replaces consumptive losses from power generation.

1998 Withdrawal limits set for Southeastern Pennsylvania Ground Water Protected Area established in 1980.

April 1999 to September 1999 DRBC leads basin-wide effort to determine public opinion on water resource related issues. Results were advanced in the "Flowing Toward the Future" report released in September 1999.

September 29, 1999 Governors of the four Basin states sign the "Resolution on the Protection of the Delaware River Basin" and call for the development of a new comprehensive water resources plan for the Basin.

October 2000 Lower Delaware River and White Clay Creek joined the Upper and Middle Delaware River and the Maurice River as part of the national Wild and Scenic River system.

Sources:

Damming the Delaware: The Rise and Fall of Tocks Island Dam by Richard C. Albert 1987

DRBC documents



Figure 8: Basin events timeline

how to address each of the issues described below will vary with the particulars of the area of planning or policy being addressed.

Defining the “key players” whose efforts must be coordinated. The list may include both Federal and state agencies, local units of government, business and industry players, research institutions, and citizen groups. In identifying “key players” it is important not to neglect those stakeholders whose perspective may not be reflected by the existing decision-making structure. Coordination must take place both as collaboration across different areas of interest (the horizontal direction) and as alignment within a single institution or hierarchy of institutions (the vertical direction).

Identifying the relevant policies, laws, regulations and planning or permitting processes which need to be better aligned, made more consistent, or otherwise coordinated. Conflicts among plans, laws, or regulatory regimes may reflect not just lack of communication but real differences in objectives. This Plan and its Guiding Principles are intended to help overcome these differences.

Creating a vehicle for collaboration that can bring the key players together. Depending upon the players involved and the plans, regulations, or activities to be coordinated, this may take the form of a collaborative planning process with a defined objective and deadline; a technical working group that convenes periodically; an advisory committee that reports to a lead agency; etc. All the players may not be on an equal footing with respect to resources and responsibility. In establishing partnerships or collaborative efforts, it is important to take into account the constraints and costs of individual contribution to ensure effective participation by all parties.

GOAL 4.2: Increase sharing of data, information and ideas among Basin stakeholders to foster partnerships and reduce the duplication of effort.

Making information available in accessible formats. Federal, state and regional agencies and non-profit environmental organizations collect a broad array of water resource-related data. This information needs to be made available in formats that can be readily interpreted for the purposes of implementing this Plan. Maps, for example, are easy to read and can be particularly useful for policy and planning purposes when associated with GIS spatial coverage that allows the overlay of other data.

Assessing the usefulness of collected data. While some basic information is more or less straightforward to use as collected, other data—such as daily precipitation, stream flow, or monthly water quality reporting—are, in their raw form, of questionable use for policy and decision makers. Some data may need to be interpreted in order to be of significant benefit to users.

- ☛ The question of scale, discussed in Key Result Area 1, is critical to our understanding of water resource issues and to the measures we develop and employ to address them. Specific problems must be understood within their local context; regional or Basin-wide context should also be taken into consideration during the evaluation of alternatives.

Identifying gaps and overlaps in data collection. Partnerships may be able to help fill gaps in data collection or eliminate duplication of effort where data collection efforts overlap.

Providing a forum for discussion and analysis of available information. There is a vast array of information, data, conjecture and misinformation available from many sources. Making sense of this information requires the opportunity to share, discuss, debate, learn and solve problems. Issue-based forums provide networking opportunities, forge partnerships, and enhance the stewardship of water resources.

GOAL 4.3: Secure adequate resources for programs and projects that encourage cooperative water resources planning and management.

Always a necessity and a challenge, targeted, strategic provision of resources will be necessary to address the Goals of the Basin Plan.

Identifying existing resources. Many state, regional, and local programs and activities are actively engaged in promoting, protecting, and enhancing water resources.

Institutional Coordination and Cooperation

An initial assessment of ongoing or planned activities and programs can be compared with Plan Objectives to determine which issue areas will require special attention and cultivation of resources.

- Explore additional resource opportunities to support investigation, monitoring, planning, and assessment and implementation activities.

Identifying and increasing opportunities to leverage federal and state funds—for water resource planning, protection, and restoration. Creating opportunities that encourage multi-jurisdictional approaches—programs and projects that encourage cooperative water resources planning and management.

GOAL 4.4: Use water resource partnerships to support and execute water resource management in accordance with the Guiding Principles, Goals and Objectives of this Basin Plan.

This Plan was developed with input from individuals representing Federal, State, and local government agencies, for-profit businesses and non-governmental, non-profit organizations. Implementation of this Plan will require the continued efforts of these partners ...and more.

Engaging a cross-section of Basin stakeholders in implementing the Basin Plan. While the DRBC will have primary responsibility for compiling data relevant to measuring milestones and indicators, Basin partners will need to continue to provide input and oversight.

The Watershed Advisory Council was convened as an ad-hoc body to provide the Delaware River Basin Commission with input on the development of a comprehensive Basin Plan. There is no formal mechanism established to continue the work of the Watershed Advisory Council or an equivalent body representing the various segments of the Basin community.

The 13,539 square miles of Basin territory is too large and its conditions too varied to effectively engage local participants on a Basin-wide scale. Effective engagement of local contributors from the 838 municipalities, 42 counties, and myriad watershed associations is essential. Watershed regions, defined by grouping adjacent watersheds, perhaps those of the HUC 11 scale (see Key Result Area 1, and see “Water Regions of the Delaware River Basin” map) offer a means of addressing local and regional issues and effectively engaging participation. Several regions have successfully organized for planning and action.

EXAMPLES OF COOPERATIVE WATERSHED PLANNING

Schuylkill Watershed Conservation Plan, PA 2001 (www.schuylkillplan.org)

Final River Management Plan for the Upper Delaware Scenic and Recreational River, National Park Service — NY-PA 1986

Watersheds: Integrated Water Resources Plan for Chester County, PA 2002

White Clay Creek and its Tributaries — Watershed Management Plan, National Park Service-DE-PA 1996

Clean and Plentiful Water: A Management Plan for the Rancocas Creek Watershed, NJ 2003

GOAL 4.5: Utilize the planning and regulatory powers of the Delaware River Basin Commission to facilitate coordination and cooperation.

Coordinating federal and state agencies within the Basin. The Delaware River Basin Commission is a federal-interstate agency, established by Compact to manage water resources within the Basin. One purpose of the Commission is to coordinate the development of a common regional resource that, before formation of the Commission, was subject to administration by 43 state agencies, 14 interstate agencies and 19 federal agencies.

Managing water resources pursuant to a comprehensive plan. The Compact authorizes the Commission to develop and adopt, after public hearing and with

input from the States and their political subdivisions, a comprehensive plan for the immediate and long-range development and use of the water resources of the Basin. The Commission should use its comprehensive plan to coordinate the goals and activities of government agencies and to guide and where appropriate regulate private activities.

Using the Commission's multi-faceted authority to assist and administer water resources in an integrated manner. The Commission is uniquely situated to integrate and provide consistency among federal, state and regional water resource programs. The Commission's Compact grants broad powers in areas of water supply, pollution control, flood protection, watershed management (including soil conservation and fish and wildlife habitats), recreation, hydroelectric power and surface and ground water withdrawals and diversions.

Leading by example and guidance as well as through regulation. The Commission should use its planning authority and leadership to educate, partner with other public and private entities and demonstrate how water resources can be wisely managed. Where coordinated efforts are important, the Commission should explore utilizing regulatory mechanisms such as setting performance standards that leave states, political subdivisions and private parties maximum flexibility in selecting the methods to meet the standards.